

Calendar

Friday, January 28

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4:00 p.m. Joint Experimental Theoretical Physics Seminar - 1 West

Speaker: T. Diehl, Fermilab

Title: Recent Electroweak Physics

Results from DZero

Monday, January 31

2:30 p.m. Particle Astrophysics Seminar - Curia II

Speaker: E. Sefusatti, New York University

Title: Constraints on Galaxy Bias and Halo Occupation Number from Large-Scale Clustering

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4:00 p.m. All Experimenters' Meeting - Curia II

Special Topic: Internal Rolls in Tevatron Dipoles

Weather



Mostly Sunny **31°/17°**

[Extended Forecast](#)

[Weather at Fermilab](#)

Current Security Status

[Secon Level 3](#)

Wilson Hall Cafe

Universities Help on NuMI

This article is the third in a series that will focus on the benefits of Fermilab/University collaboration on different accelerator projects.



The University of Texas at Austin group standing in front of a NuMI muon beam monitor. Clockwise from top left: grad student Bob Zwaska, Ass't. Prof. Sacha Kopp, grad student Dharma Indurthy, Zarko Pavlovic, undergraduate Ryan Keisler (not pictured is engineer Marek Proga). (Click on image for larger version.)

Small neutrino experiments such as NuMI have a close integration between the accelerators and detectors, offering physicists and students a complete perspective of the overall experiment. For example, a group of students from the University of Texas designed and built a system to monitor the tertiary muon beam produced along with the neutrinos for MINOS.

"It's a great learning experience for the students," said Sacha Kopp, Assistant Professor at the University of Texas and supervisor for the project. "This kind of hands-on experience is good training and

In the News

From *Science Magazine*, January 28, 2005

BLOGS: A Year in a Physicist's Life

Einstein's unkempt appearance was likely essential to his adoption as a pop icon, argues David Waller of the Sudbury Neutrino Observatory in Canada, who suggests that physicists commemorate Einstein by growing big hair. Directing a beam of protons to a detector 1000 meters away reminds Debbie Harris of Fermilab in Illinois of giving birth, because both processes have to occur in stages. These are highlights from [Quantum Diaries](#), a new project sponsored by a coalition of particle physics labs to commemorate 2005's World Year of Physics. More than 20 physicists from around the world will chronicle their opinions, interests, successes, and failures over the next 12 months with regular dispatches, video clips, and photos. So far, participants have weighed in on everything from how they got started in the field to the connection between physics and jazz.

[read more](#)

From *Nature Magazine*, January 26, 2005

Antigravity has feet of clay

by Philip Ball

Could astronauts take a leaf out of H. G. Wells's book *The First Men in the Moon*, and use spacecraft propelled by antigravity devices? Some see the idea as science fiction, but major space agencies take it seriously.

In 2001, the European Space Agency

Friday, January 28

New England Clam Chowder

Western BBQ Burger \$4.75

Turkey Tetrazzini \$3.75

Meatballs Teriyaki over Rice \$3.75

Bistro Chicken & Provolone Panini \$4.75

Assorted Personal Size Pizzas \$3.25

Carved Top Round of Beef \$4.75

[Wilson Hall Cafe Menu](#)

[Chez Leon](#) will be closed through January and February

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gets students more strongly connected with their experiments. It's also a good introduction for those students who eventually decide to do an accelerator PhD thesis."

The University of Texas group also built a system of segmented Secondary Emission Monitors (SEMs) to monitor the 120 GeV proton beam extracted from the Main Injector to the NuMI target. "The foil SEMs monitor the proton beam profile onto the target. They must withstand much higher instantaneous beam power than previous instruments, making this an interesting challenge," Kopp said. "We hope these might be of use elsewhere."

Bruce Baller, Fermilab's NuMI Department head, said universities often create new technology for Fermilab. "While Fermilab has to focus on keeping the machines operating, universities can build new machines that you can't just buy from a vendor," he said. "With any new machine, however, there is a risk involved, which requires even more caution because these new machines affect not just one but many of the experiments going on."

Also contributing to the NuMI beam monitors were the University of Wisconsin and University of Pittsburgh for the muon monitor R&D, Indiana University for the beam Monte Carlo, UNICAMP/Sao Paulo and Argonne National Laboratory for the target hall instrumentation, and Brookhaven National Laboratory for the beam instrumentation readout.

Next: Main Injector

(ESA) commissioned two scientists to evaluate schemes for gravity control. They have concluded that, even if such control were possible, the benefits for lifting spacecraft out of the Earth's gravitational field would probably not be worth the effort¹.

[read more](#)

Announcements

New Classifieds on Fermilab Today

New [classified ads](#) have been posted on *Fermilab Today*. A permanent link to the classifieds is located in the bottom left corner of *Fermilab Today*.

Artist Reception Tonight

The Fermilab Art Gallery will host an Artist Reception tonight for Chicago Tribune Photojournalist Pete Souza from 5:00 to 7:00 p.m. on the second floor crossover. At 7:00 p.m. Souza will give a lecture in One West about his exhibit, "Environmental Battlegrounds."

[more information](#)

Recreation Office Offers Discounts for Valentines Day Gifts

The Recreation Office offers discounts to 1-800-flowers.com and Popcorn Factory. Contact the Recreation Office for promotion codes and receive a 10% discount. A 25% discount is also available for speakingroses.com.

[more information](#)

Winter & Spring Muscle Toning Class Schedule

Gain strength, lean body mass and increased muscle definition. The class schedule is February 15 - March 10, 4 week Class for \$32.00, March 22 - April 21, 5 week class for \$40.00 and April 26 - June 2, 6 week class for \$48.00 Classes

So Long, Bob JohaneK

Bob JohaneK retires today after working at the Fermilab Technical Division for over 16 years. He has worked as a CNC Machinist in the Village Machine Shop, making components that go in nearly all the projects at Fermilab. Before he worked at Fermilab, he worked as a tool and dime maker for 25 years.



Bob JohaneK

"Although it will be nice to retire, I'll still miss all the camaraderie with the guys and getting all the local gossip," he said. "It's something you've done all your life, and now you'll never do it anymore, so it'll be a change."

JohaneK said that he plans to spend more time working in his garden at his Warrenville home with his wife, as well as going fishing.

Correction

Tuesday's story on Jim Gunn of SDSS winning the AAS Henry Norris Russell Lectureship omitted the name of Jerry Ostriker, another significant early member of SDSS and the Russell Lectureship winner in 1980. *Fermilab Today* regrets the error.

are held on Tuesday and Thursday from 5:30 - 6:30 in the Recreation Facility Exercise Room. A Recreation Facility Membership is required. Deadline to register is the Friday prior to the start of the session.

Rhythm & Blues Musical with Fermilab Connections

A new rhythm & blues musical with music by Jamie Ellis of Geneva and book and lyrics by former Fermilab physicist Steve Delchamps is going to be presented at Steel Beam Theatre in St. Charles during February. The engagement is limited to two weekends: 2/11-2/13 and 2/18-2/19/ For reservations, call the Steel Beam Theatre at 630-587-8521.

[Upcoming Activities](#)